

Notice of Allowability

Application No.

09/612,404

Examiner

Manjunath N. Rao, Ph.D.

Applicant(s)

BARRY ET AL.

Art Unit

1652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

Claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included with (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

☒ This communication is responsive to the paper filed on 3-19-04.

☒ The allowed claim(s) is/are 4,7,10,13 and 16.

☒ The drawings filed on 19 March 2004 are accepted by the Examiner.

☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of the:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements stated below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.

(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Comment(s)

☒ Notice of References Cited (PTO-892)

☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____

☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.

7. ☐ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____.

Manjunath N. Rao, Ph.D.
Primary Examiner
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DETAILED ACTION

Claims 4, 7, 10, 13, 16 are currently pending and are present for examination.

Applicants' amendments and arguments filed on 3-19-04, have been fully considered and are deemed to be persuasive to overcome the rejections previously applied. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn.

Applicant's surrendering of the original ribboned patent US 5,776,760 in response to the Office action dated 3-27-02 is hereby acknowledged.

INFORMAL EXAMINER'S AMENDMENT

The following informal Examiner's amendment has been done to correct minor typographical errors committed by the applicant in the amendment submitted on 3-19-04. In that amendment applicant failed to recite the first square bracket used to demarcate the text being amended and failed to provide a clean version of the amended claims.

The amendment to the specification and a clean version of the amended claims follow in separate pages.

AMENDMENT TO THE SPECIFICATION

Please amend the paragraph at column 17, lines 14-34, of the specification as follows:

The glyphosate target in plants, the [5-enolpyruvyl-shikimate-3-phosphate] 5-enolpyruvyl- shikimate-3-phosphate synthase (EPSPS) enzyme, is located in the chloroplast. Although glyphosate oxidoreductase activity located in the cytoplasm reduces/prevents glyphosate from reaching the chloroplast in the transgenic plant, directing the glyphosate oxidoreductase enzyme to the chloroplast has been found to further minimize the effects of glyphosate on EPSP synthase. Many chloroplast-localized proteins are expressed from nuclear genes as precursors and are targeted to the chloroplast by a chloroplast transit peptide (CTP) that is removed during the import steps. Examples of such chloroplast proteins include the small subunit (SSU) of Ribulose-1,5-bisphosphate carboxylase (RUBISCO), 5-enolpyruvyl- shikimate-3-phosphate synthase (EPSPS), Ferredoxin, Ferredoxin oxidoreductase, the Light-harvesting-complex protein I and protein II, and Thioredoxin F. It has been demonstrated in vivo and in vitro that non-chloroplast proteins may be targeted to the chloroplast by use of protein fusions with a CTP and that a CTP sequence is sufficient to target a protein to the chloroplast (della-Cioppa et al., 1987).

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Amended claims according to 37 CFR 1.173(b)(2)

Claims 1-3. (Canceled)

Claim 4. (Currently amended) An isolated DNA molecule comprising SEQ ID NO:4.

Claims 5-6 (Canceled)

Claim 7. (Currently amended) An isolated DNA molecule comprising SEQ ID NO:6.

Claims 8-9 (Canceled)

Claim 10. (Currently amended) An isolated DNA molecule comprising SEQ ID NO:7.

Claims 11-12 (Canceled)

Claim 13. (Currently amended) An isolated DNA molecule comprising SEQ ID NO:8.

Claims 14-15 (Canceled)

Claim 16. (Currently amended) An isolated DNA molecule comprising SEQ ID NO:17.

Claims 17-20 (Canceled)

Allowable Subject Matter

Claims 4, 7, 10, 13, 16 are allowed.

The following is an examiner's statement of reasons for allowance: Following a diligent search it was determined that the prior art neither teaches nor suggests isolated polynucleotide comprising the nucleotide sequence SEQ ID NO:4-8 as claimed in claims 4, 7, 10, 13, and 16.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Manjunath N. Rao, Ph.D. whose telephone number is 571-272-0939. The Examiner can normally be reached on 6.30 a.m. to 3.00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Ponnathapura Achutamurthy can be reached on 571-272-0928. The fax phone numbers for the organization where this application or proceeding is assigned is 703-872-9306 for regular communications and for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1600.



MANJUNATH N. RAO
PATENT EXAMINER

Manjunath N. Rao
June 8, 2004